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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,417	10/22/2001	Min-Koo Kim	678-761 (P9967)	7675

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EXAMINER

ALPHONSE, FRITZ

ART UNIT PAPER NUMBER

2133

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004,417

Applicant(s)

KIM ET AL.

Examiner

Fritz Alphonse

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulz (U.S. Pat. No. 5,684,967) in view of Ran (U.S. Pat. No. 5,768,533).

3. As to claim 1, Schulz (figs. 2-5) discloses a method of transmitting a physical layer information stream having a plurality of sub-blocks, each sub-block having an error correction code (col. 8, lines 44-57), comprising the steps of: dividing the encoded physical layer information stream into a plurality of slots (col. 7, lines 1-12); sequentially transmitting the divided slot data to a receiver in predetermined time intervals (col. 5, lines 44-59); and re-transmitting slot data with a sub-block having an error repeated within the number of the sub-blocks after transmission of initial slot data (col. 8, lines 44-57).

Schulz does not explicitly disclose an HARQ (Hybrid Automatic Repeat Request) message for the initial slot data from a receiver.

However, in the same field of endeavor, Ran discloses a communication system, wherein an HARQ (Hybrid Automatic Repeat Request) message for the initial slot data from a receiver can be employed (col. 7, lines 59 through col. 8 line 9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Schulz's device with the communication system, as disclosed by

Ran. Doing so would eliminate the flawed areas in data transmission and permits use of inter coding.

As to claims 3-6, Schulz (figs. 2-5) shows a method, wherein a code set is generated prior to initial transmission and the initial transmission is performed using a predetermined code in the code set; and wherein if at least one sub-block is retransmitted after the sub-blocks are transmitted a predetermined number of times, the code of the retransmission-requested sub-block is changed (col. 9, lines 9-15).

As to claim 7, Schulz (figs. 2-5) shows a method, wherein upon receipt of a retransmission request after retransmission-requested sub-blocks are transmitted using all the codes of the code set, the retransmission-requested sub-block is transmitted using a code selected in the predetermined order starting from the code for initial transmission (col. 2, lines 14-25).

4. Claims 2, 8, 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulz in view of Ran as applied to claim 1 above, and further in view of Ghosh (U.S. Pat. No. 6,308,294).

As to claim 2, Schulz does not explicitly disclose a method, wherein if the failed sub-block having an error is transmitted at least twice, the slot data repeats only the failed sub-block and includes the number of the sub-blocks. However, these limitations are obvious and very well known in the art, as evidenced by Ghosh (col. 1, lines 50-64).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to improve upon the adaptive hybrid system, as disclosed by Ghosh. Doing so would allow retransmissions of different sizes, and is better on fading channels (col. 3, lines 1-5).

As to claim 8, the claim has substantially the limitation of claim 1. Therefore, it is analyzed as previously discussed in claim 1 above.

As to claim 9, Schulz does not explicitly disclose a method, wherein if the number of the transmitted sub-blocks is an integer-multiple of the number of the failed sub-blocks, the failed sub-blocks are repeated the same times if the failed sub-blocks have the same priority. However, these limitations are obvious and very well known in the art, as evidenced by Ghosh (col. 1, lines 50-64). See the motivation for the same reason in claim 2 above

As to claim 10, the claim has substantially the limitation of claim 2. Therefore, it is analyzed as previously discussed in claim 2 above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 Form.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for all formal communications.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

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Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Fritz Alphonse

Art Unit 2133

August 19, 2005



GUY LAMARRE
PRIMARY EXAMINER